Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A method for the estimating of the residual service life of an apparatus which is subjected to a wear during operation, with the following steps:

a) for at least one characteristic parameter (T) which is sensitive to the wear (V), a relationship is determined to a time parameter (A) which is representative for the operating period;

b) a limit value (G) is fixed for the characteristic parameter (T) which gives the maximum permitted wear;

c) a code field (KF) is established which gives a relationship between the characteristic parameter (T), the time parameter (A) and the wear (V);

d) actual values are determined for the characteristic parameter (T) in dependence on the time parameter (A) with the aid of data obtained by a measurement;

e) the instantaneously present wear (V) is determined from the actual values with reference in each case to the code field (KF);

f) starting from the instantaneous actual value of the characteristic parameter (T), a determination is made by means of extrapolation to the limit value (G) of the end value of the time parameter (A) for which the maximum permitted wear is reached;

g) the residual service life (RL) is estimated by a comparison of this end value with the value for the time parameter which belongs to the instantaneously present wear.

Claim 2 (currently amended): A method in accordance with claim 1, in which the code field (KF) is established with the aid of a-priori knowledge of the wear ~~behaviour~~ behavior.

Claim 3 (original): A method in accordance with claim 2, in which the a-priori knowledge includes the qualitative and/or quantitative course of wear curves (K1, K2, K3, K4) which give the relationship between the characteristic parameter and the time parameter.

Claim 4 (previously presented): A method in accordance with claim 1, in which the code field (KF) is established by means of a linguistic fuzzy model.

Claim 5 (previously presented): A method in accordance with claim 1, in which the code field (KF) is modified with reference to measurement data or on the basis of plausibility observations.

Claim 6 (previously presented): A method in accordance with claim 1, in which the code field (KF) represents an area in a three-dimensional space which space is set up by the characteristic parameter (T), the time parameter (A) and the wear (V).

Claim 7 (previously presented): A method in accordance with claim 1, in which the data obtained by a measurement is subjected in each case to a filtering or an averaging for the determination of the actual values for the characteristic parameter.

Claim 8 (previously presented): A method in accordance with claim 1, in which a model is established with the aid of a plurality of sets of data obtained by a measurement, with which model an actual value is determined for the characteristic parameter.

Claim 9 (currently amended): A method in accordance with claim 1, in which the apparatus is an engine, in particular an ~~aeroplane~~ airplane engine.

Claim 10 (currently amended): Use of a method in accordance with claim 1 for the service planning, in particular of an ~~aeroplane~~ airplane or of a plurality of ~~aeroplanes~~ airplanes.